

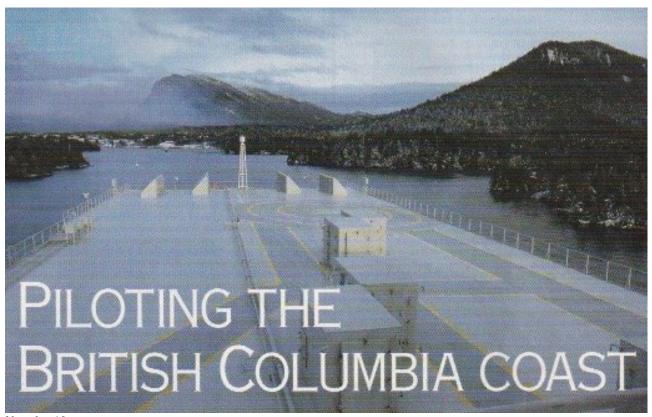


The Newsletter of the Nautical Professional Education Society of Canada

(Society founded in 1995 by the British Columbia Branch of The Nautical Institute)



November 2021



Nearly 40 years ago, I spent a winter on a herring seiner out of Port Edward on Porpoise Harbour, just south of Prince Rupert, B.C. The reduction plant was accessed through a narrow channel with ranges, but it never seemed much of a challenge from the deck of a 77-foot fish boat.

Above: Swift Arrow travels through Porpoise Harbour.

In January of 1998 I saw Porpoise Channel again from the deck of a 610-foot Gearbulk freighter.

The Pilot squeezed the ship's 99-foot beam into the narrow gut like meat into a sausage skin. Stepping out on the bridge wing, Apprentice Pilot, John Porter looked straight into the eye of a bald eagle sitting atop a big cedar tree, then looked down at a channel marker nearly scraping the ship's side.

"Do you still want to be a Pilot?" I asked.

"I've wanted it all my life, and I still do," he replied without hesitation.

Porter was in the third month of a six-month apprenticeship with the B.C. Coast Pilots. With 111 members, they serve one of the largest single pilotage areas in the world, along the inletted islands and inland-studded coast from the Strait of Juan de Fuca in the south to Dixon Entrance in the north. Porter already had an extensive coastal knowledge gained over many years of towing log barges south from upcoast inlets. But like me he is impressed with how different the coast's narrow tide-torn passes look from the bridge of a deep-sea ship.





Porter and I boarded the Swift Arrow at Port Mellon in Howe Sound near Vancouver with two licensed Pilots, Captain George Boothby and Captain Ken Robinson.

Right: Swift Arrow's route from Howe Sound to Watson Island in Porpoise Harbour took he part of the way through the Inside Passage and partly through open ocean. By the most direct route, from Vancouver or Howe Sound, Prince Rupert is about 470 miles. We had come from Vancouver in heavy snow by taxi out to the ferry terminal at Horseshoe Bay, then had a half-hour ferry ride across the mouth of Howe Sound. Another taxi took us over the 10 miles or so of slippery road to board the Swift Arrow in time for the scheduled 2230 departure.

The bridge deck is located midships over a huge "garage" that protects the cargo holds from the West Coast's rainy weather during the loading of sensitive cargoes of newsprint and other forest products. The garage gives the ship the boxy appearance of a car carrier. Roomy and well laid out, the wheelhouse is entered from the rear where a chart table, a weatherfax, fore-and-aft digital and paper echo sounders, a GPS and other communications systems are surrounded by blackout curtains at night. Across the forward part of the bridge are a pair of state-of-the-art, a helmsman station and an engine room control panel, as well as a comprehensive set of instruments, including wind indicator, tachometer and helm indicator.

Captain Per Johan Talleraas greeted the Pilots.

"What is your draft, Captain?" asked pilot George Boothby." "Seven point nine metres, Mr. Pilot," came the reply.

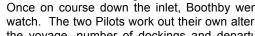
"We'll have to go into Watson Island on the afternoon tide Thursday," observed the pilot.

It was Monday night, and with a sea speed around 15 knots, the ship could cover the 470 miles to Porpoise Harbour and Watson Island in about 32 hours. We could have made it through the pass into the pulp mill dock at Watson Island on the morning low-water slack, but the draft was too much since there would have been insufficient under-keel clearance over Agnew Bank at the approach to the harbour. Boothby indicated that, once through Seymour Narrows, we could travel at reduced speed up the Inside Passage to arrive just in time for high water.

With the deep-sea mariner's caution of inland waters, Talleras replied, "Maybe we should go outside."

But this was a decision that didn't have to be made immediately. First the ship had to be peeled off the dock and turned down Howe Sound. Swift Arrow is a big ship, but with her Shilling rudder and 2,700-hp diesel-electric bow thruster, the Pilots were able to work her off the dock with assist tugs. The Shilling rudder has a hydrodynamic design that includes a flared trailing edge, and it can be swung over to full rudder at 67.5° compared to less than 40° with most conventional rudders. At Port Mellon the Pilot asked for full port rudder and slow ahead. At the same time he asked for full port thruster. A wash broke the dark snow-flecked surface under the bow, and a matching wash pushed against the pier face from under the stern counter. Snow-covered chip scows moored ahead provided no obstacle as the ship continued her swing off the dock.

With the stern clear, the pilot asked for "Port twenty," allowing the bow to swing farther out than the stern to begin the 180° turn before heading down the inlet.



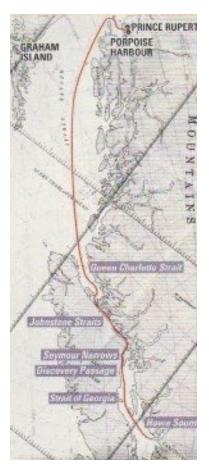
Once on course down the inlet, Boothby went below to get some rest for his morning watch. The two Pilots work out their own alternating watches depending on the length of the voyage, number of dockings and departure time. The second Pilot, Captain Ken Robinson, had Apprentice Pilot Porter inform Vancouver Vessel Traffic that we were underway. Vancouver responded that we would be overtaking a log boom under tow by the tug H.N. Hodder and meeting the tug F.W. Wright, also with a tow. Nice things to know on a big ship in confined spaces on dark and snowy nights. Overtaking the log tow, we squeezed between the beach and its starboard side.

Left: Apprentice pilot John Porter calls out a course change to Swift Arrow's helmsman.

Both Pilots explained shiphandling and navigational practices to Porter along the way. Some of the talk, at it is with most boats northbound on this stretch of coast, was of our timing to the next slack tide in Seymour narrows, halfway up the East Coast of Vancouver Island. As we cleared the harbour, the Pilot handed control over to Porter who began calling the rudder and course changes to the helmsman from courses off the radar and in his course book. Porter's course book is a tidier version of the Pilots' books, with courses, currents and navigational aides listed for all the passages on the coast. At 2337, as Porter brought the ship into the Gulf of Georgia, he asked for a change in

heading from 130° to 225° and increased the main engine speed from the full ahead at 70 rpm to a sea speed of 92 rpm.









The five-cylinder Mitsui B&W main engine, operating conservatively, delivers about 11,000hp, according to Croatian Chief Engineer Jurjako Lucio, who is from the northern Adriatic islands of Losinj-Cres. The ship also has three 1,050hp Bergen diesels turning gensets. In normal operation only one of these is running. When the cranes are working in port, two are required, and when docking, with the huge 2,700hp electric bow thruster, all three auxiliaries are on line. The bow thruster is an important feature of the *Swift Arrow*. Talleraas explained that the vessel typically visits seven ports in Japan six times per year. The bow thruster allows them to save on the use of about 80 tugs per year at a total savings of about \$200,000. Over a typical 20-year life of a ship, that amounts to very significant savings.

As we came abeam the Cape Mudge lighthouse at 0451 on January 13, Boothby gave the course changes that would take us into the passage leading to Seymour Narrows and past the town of Campbell River on the Vancouver Island shore.

Boothby recalled the hectic summer seasons when he has piloted Alaska-bound cruise ships through these waters. "It's nice being here with a freighter," he said. In summer I've been lined up here with nine cruise ships, some southbound and other northbound. We were all waiting for slack water in the Narrows, and the Captains with the pressure of their schedules all want to make time."

He told of the challenges of conning large cruise ships that can turn on a dime at 24 knots but that the Pilot dare not turn at more than 10° rate of turn per minute unless the speed is reduced to les than 12 knots for fear of causing excessive heel for the passengers. But this night we were the only traffic. Reminisces turn to log barging and "bag-packing", the pilots' term for the apprenticeship.

"I'm really enjoying the choices," Porter said, explaining that he has been given a checklist assuring that he covers the coast over the six months of his training. "Once I'm a Pilot I get dispatched to what ever job comes up."

On this trip, Porter was completing the 41st of around 100 trips that he will make during his apprenticeship. Once licensed he can initially handle only ships to 594 feet, so he wouldn't be able to take the *Swift Arrow* until he has another six months' experience. For the first five years of their careers, various size and category limits exist for Pilots.

Abeam of Steep Island, Boothby reported to Vancouver Vessel Traffic with out current speed of 10 knots and our 0555 ETA for Separation Head at the other end of Seymour Narrows. Vancouver traffic reports no southbound traffic. There is a kind of heightened awareness, something just short of tension, that fills the bridge as a Pilot cons a deep-sea ship through a narrows while the Captain stands off to the starboard side of the bridge. The Philippine helmsman enunciates clearly as he repeated the course changes from 325° to 320°, to 290°, then to 285°. Meanwhile, the Pilot explained, "I would normally steer 290° through here, but this allows for a slight tidal set on to Maude Island."

In the Narrows, which is a bit less than half a mile wide and routinely has tides to 15 knots, we passed about 200 yards off Maude Island. "With the ebb you have to watch that the current doesn't set you down on the Vancouver Island side," Boothby told Porter. At Separation Head he reported to Vancouver traffic that we were clear of the Narrows. The course

was set for 355° , and the Pilot allowed the Apprentice to take over under his supervision for the relatively straightforward course changes that will take us up Johnstone Strait in the approaching dawn.

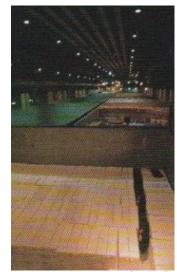
At 0840, abeam Windy Point in Johnstone Strait, the Seattle tug *Western Ranger*, southbound with an empty oil barge, was bucking into a freshening 20-knot southeaster. By 0935 the wind has grown to 40 knots, and an 85-foot southbound fishing boat was taking water over her wheelhouse. The bulk of the *Swift Arrow* remained solidly oblivious to the gale-force winds. By 1000 we were approaching Blackney Pass, which can have up to six knots of tide. Porter remarked how nice it was to be able, from our lofty perch, to see over the height of Cracroft Point at the entrance to the pass. The Pilot explained that with the wind on the stern quarter, the pass should be entered with the wheel amidships, as the wind will blow the ship around the turn.

As we worked our way up Queen Charlotte Strait, Boothby recounted his experience at the Port Revel Pilot Training Centre in France. "They built a kind of 25:1 mock-up of Duncan Bay and Port Moody for us, so that we could practice dredging in the current," he recalled. Porter and the other Apprentices were scheduled to spend a week training at the facility in April.

Left: Under the huge 'garage' covering the ship's main deck, the cargo hold remains open. As the ship approached the northern end of Vancouver Island, the Pilot asked the Captain if he wanted to go up the sheltered inside passage or take the exposed outside

waters. Well ahead of time for the high-water slack to enter the Watson Island dock, the Pilot assured the Captain that there was no problem travelling slow up the Inside Passage, but Talleras chose the outside. This meant the Pilots would get a break from their duties, since the ship would be outside pilotage waters.

At 1345 Pilot Ken Robinson, who had earlier relieved Boothby, handed the ship over to the First Mate, who set the speed at 11 knots for an ETA at Triple Island, 261 miles north on the eastern end of Dixon Entrance, for 1100 the next morning, January 14. The winds continued to rise so that by the time we were 20 miles offshore it was blowing 50 knots and the ship was developing some motion, but it was moderate for those accustomed to these waters in smaller boats.







First Mate Napao explained that in Pacific storm he has been on the ship when it rolled up to 20° and he had spoken to others who had seen it roll 30°. I tried to imagine the arc of travel for those on the bridge and was relieved when he told me that, with the storm on our stern, our roll would stay under 10°.

At Triple Island the Prince Rupert-based pilot boat had just taken another of the B.C. Coast Pilots off an outbound bulk carrier. The pilot boat, dispatching and billing are all handled for the B.C. Coast Pilots Ltd. by the federally mandated Pacific Pilotage Authority Canada, one of several crown corporations set up to manage pilot services in Canada.

B.C. Coast Pilots Ltd. is owned by the active Pilots themselves, who are all equal shareholders with one share per Pilot purchased for a token \$1.00 on joining and sold back for the same on retirement. The only British Columbia Pilots not in this Company are the Fraser River Pilots, who are employed directly by the Pacific Pilotage Authority.

Triple Island would be the departure point for *Swift Arrow* when she put to sea a few days later. From there she would steer virtually due west to Unimak Pass to travel through the Bering Sea on her route to Japan. Our trip in from Triple Island to the narrow channel that leads into Porpoise harbour and the pulp mill dock at Watson Island was uneventful, with good water between the rocks and small islands along the way. By 1345 we were three miles out from the entrance. High-water slack in Prince Rupert is 1425. Watson Island is 40 minutes later, so we had been making just enough way to maintain steerage. Two tugs were needed in Watson Island and the 50-foot, 1,800-hp tugs *Rivtow Don* and *Rivtow Star* were assigned. "With a 2,700-hp bow thruster, the dock is the least of our worries," explained Robinson. "But the narrow channel and tidal effect on the ship are significant. So we need a bit of an ebb or slack for steerage. We won't go in if the crosswinds out of the Skeena River are over 25 knots."

One tug was positioned in mid-channel so that the Pilot could get direct information of tidal currents and to give the Pilot an additional point of reference on the second of the two ranges that must be followed into the pass. The entrance to the pass must be approached at right angles to avoid the 24-foot shallow over Agnew Bank. To my untrained eye it looked like we are going to run down the red marker buoy on the bank, but then Boothby called for "Port 10," and the buoy slid past 33 feet off the starboard side.

One tug escorted us through the narrow pass while the other held position at the far end of the mile-long narrows. He reported that the tide had slackened as the big ship eased into the narrows. Several people on the bridge stared intently ahead while the bald eagle looked with only mild curiosity at this mountain passing within a few yards of his perch. Through the narrow entrance, Porpoise Harbour opens with just enough room to turn the ship in its own length. This was

accomplished with the Shilling rudder and the bow thruster, with the tugs for back up. The dock, built on wooden piles, looked fragile, but intent eyes and skilled commands worked together to lay the big ship alongside. The tugs held her in place while the lines were made fast. Huge doors opened in the side of the cargo garage and the ship's two 40-ton cranes were ready to load.

Right: Swift Arrow alongside the Watson Island dock.

The two Pilots, the apprentice and I spent the night ashore in Prince Rupert. The next morning, Robinson and Boothby took a Saga Carriers ship south to Vancouver. Apprentice John Porter and I climbed back aboard the *Swift Arrow* at 1400 with Pilots Jack Davies and Clive Pennington who had flown up from Vancouver. We would catch the high water out of



Porpoise Harbour and run 120 miles down narrow Grenville Channel and up Douglas Channel to Kitimat where the ship would top up her cargo with aluminum.

Piloting on the B.C. coast is made considerably less stressful by the mandatory reporting to Vancouver vessel traffic in the southern half and Prince Rupert vessel traffic in the north. However, not everyone conforms. As we moved at 15 knots down the very dark, snow-flurry-blurred Grenville Channel the radar picked up a pair of targets travelling at about 8 knots in the same direction. The Pilot called Prince Rupert radio, which confirmed its earlier transmission of "No reported traffic." A call on the VHF failed to elicit any response. Was this a small tug and tow with a single tired crewman in the wheelhouse? Was it two fishing boats with their radios turned off?

The images on the radar kept closing. Forty-five mile long Grenville Channel narrows to as little as 2½ cables in places. Pennington gave careful course changes a degree or two at a time in an effort to squeeze past on the silent vessels' port side. Pennington kept a close eye on the turn indicator over the wheelhouse windows to assure himself that the helmsman had carried out each command with precision as he stared into the lighter shade of darkness that marks the water in the narrow, mountain lined channel. Finally, when we were less than a mile off their stern, the two fishing boats, as they revealed themselves to be, swung over a little to starboard. Routine for Pennington, who began his maritime career in the 1950s with the British Cunard White Star Line. Some hours later, as we reached the head of Douglas Channel at Kitimat, the outflow winds were whistling around the wheelhouse. Pilot Jack Davies was making the landing; the cold had frozen a coating of ice on the fender logs lining the pier face at the aluminum company dock. With just a touch of help from the tug, and working the Shilling rudder and bow thruster in harmony, Davies inched the ship to the





pier face. Her full 610-foot length touched the fender logs at the same instant, sending a satisfying crackling into the cold winter air as the ice broke from the logs.

"Perfect landing," I said.

"Aren't they always?" was Davies' laconic reply.



Many readers will know Watson Island as a place to load Woodpulp. Today the place is handling a very different commodity.



Above: Outbound loaded LPG tanker from the Watson Island Propane Export Terminal. Assist from SAAM Capilano and SAAM Mississippi

Right: SAAM Mississippi (64 ton bollard pull ASD), my trusty escort tug outbound to the harbour limit with a fully loaded LPG

Photos from BC Coast Pilot Captain David Willows Twitter page: https://twitter.com/dbwillows (Captain Willows was a graduate of the first intake of Nautical Science Cadets at BCIT).



Prince Rupert Terminal: Located on Watson Island in the vicinity of Prince Rupert, B.C., the facility is best viewed as a small-scale rail terminal, moving LPG from rail cars to vessels destined for international markets. There is no on-site processing or refrigeration, and the terminal is limited to handling and storage.

The facility is comprised of approximately 5 kilometres of new rail ladder tracks and three aboveground propane storage spheres. Propane is offloaded and stored at the rail terminal following delivery by CN via its existing rail lines. The terminal is expected to operate at 20,000 barrels per day with a capacity of 25,000 barrels per day. Propane is the only product that Pembina plans to handle at the facility. The propane is extracted off site from natural gas supply in northern BC and Alberta and will be transported from our

Redwater Complex northeast of Edmonton to Prince Rupert by rail. The project capital budget was \$250 million. https://www.pembina.com/operations/projects/prince-rupert-terminal/

The Prince Rupert Terminal (PRT) is a propane export facility, and it's located on Watson Island, B.C. Historically, Watson Island was home to an operating pulp mill facility from 1955 to 2001, when the pulp mill went into bankruptcy and the facility was abandoned. Through tax recovery, the City of Prince Rupert became the owner of Watson Island. In 2015, the City began decommissioning







and demolishing the former mill's infrastructure. In 2017, Pembina leased a portion of Watson Island for PRT.

The former mill site was considered a contaminated site under provincial legislation. Contaminated means the site had concentrations of chemicals or other materials in the soil or water that are above allowable levels. Once remediated, the former mill site had good potential for redevelopment, also known as "brownfields." Photo above from: https://www.lpgasmagazine.com/pembina-opens-first-lpg-export-facility/

(As mentioned above, the pulp mill has gone and has been replaced by this LPG facility. One thing has not changed though - the low clouds. See them in the photo? For all that, Prince Rupert is known as the City of Rainbows, and for a rainbow you need sunshine. You will see many rainbows in Prince Rupert).

Hyundai Plans First Ocean-Going Autonomous Ship Voyage by Year's End: Autonomous ship operations will take a giant step forward later this year as South Korea's Hyundai Heavy Industries plans to operate the first oceangoing demonstration voyage of an unmanned system. According to the shipbuilding company, before the end of the year, they will undertake a voyage using one of the large, new liquefied natural gas carriers (LNG) currently under construction at one of the company's shipyards.

Hyundai is involving several parts of the group as it seeks to move forward aggressively with automation in different parts of its operations. The group launched a dedicated company focused on autonomous operations called Avikus Corp., which has been working with the shipyard on the development of a system they call Hyundai Intelligent Navigation Assistant System (HiNAS) 2.0. Outside the maritime world, Hyundai has also demonstrated autonomous equipment

including a warehouse forklift.



For the upcoming demonstration voyage, Hyundai plans to deploy the system on a 985 foot long newly built LNG carrier currently being built within its Korea Shipbuilding & Offshore Engineering Co. Depending on the timing of the completion of the ship and other factors, the voyage will either be on the Pacific or the Indian Ocean. According to the company, it will be the world's first transoceanic voyage where the system will manage the ship only overseen by the crew onboard.

HiNAS, jointly developed by Hyundai Heavy Industries Group and KAIST, uses artificial intelligence (AI) and augmented reality (AR) to automatically recognize nearby ships through ship camera analysis to determine the risk of collision. In the

first version of the system, it informed the navigator and aided in situations where visibility is not secured such as at night or in sea fog. The infrared cameras can be used to comprehensively analyze and provide information such as the location and speed of obstacles.

In the second version of the system that will be used on the LNG carrier test, the system automatically recognizes objects surrounding the vessel and route to eliminate the risk of collision. The vessel will also be equipped with the Hyundai Intelligent Berthing Assistant System (HiBAS), which provides a full view of the ship when berthing. Based on the results of the demonstration, the group said it will decide on the commercialization strategy for its autonomous navigation solution.

Previously, Hyundai conducted a first level test aboard a 250,000-dwt bulk carrier operated by SK Shipping. In that test, the system provided decision-making support to officers including the Navigator and Captain. The upcoming test moves to the next level where the crew is onboard overseeing the operations. At the third level, the system would control most of the ship's operations with only a minimum number of crew aboard, while at the highest level the ship operates entirely autonomously without a crew aboard.

Recently, Hyundai demonstrated a 12-passenger vessel operating in fully autonomous mode sailing through the canals in South Korea. Hyundai expects to have the first commercial application for a leisure craft available in 2022 and the first version for smaller passenger crafts to be available by 2023.

Hyundai Heavy Industries is also participating in the state-led five-year autonomous navigation technology development project. South Korea is investing \$140 million to develop the autonomous shipping market targeting as much as a 50 percent share of the market which is projected to reach \$150 billion by 2030.

https://www.maritime-executive.com/article/hyundai-plans-first-ocean-going-autonomous-ship-voyage-by-year-s-end PUBLISHED JUL 27, 2021 BY THE MARITIME EXECUTIVE

Life Skills: Jeff Otto, the Coordinator of the Cadet Program at the Marine Campus of BCIT, sent the following message after receiving the August Seatimes: -





I had a quick look at the Seaways newsletter you had just sent out and on the last page were the awards. I saw Brian Silvester's award and it made me think of him.

I managed to dig up this email from him a couple of years ago and wanted to share it with you. I absolutely loved it! I have shared it (hiding the Engineeer Cadet's name) with Cadets over the last couple of years as a teaching point.

From: Brian Silvester Sent: April 9, 2014 1:42 PM

To: Jeff Otto Subject: Life skills

Jeff - I received an e-mail from one of the engineering cadets asking for details of the 2014 NPESC bursary. I replied to XXXXXXX explaining that the applications would be out by the end of April and that you would probably post the application forms when you received them. He replied and addressed me as "Brian". Would you please explain to the cadets that if an e-mail is signed "Captain B. Silvester FNI" it is appropriate to address messages in the same manner as the signature on the e-mail. My mother called me Brian, my wife calls me Brian, Second Year Engineering Cadets do not call me Brian.

Cheers, Brian

Capt. B. Silvester FNI

One ship is hacked every day on average. Ships and shipping companies are regularly targeted by cyber criminals, webinar discussion hears: Ships are being regularly <u>hacked</u>, at a rate of as many as one a day, an industry audience has heard.

Known cases include an incident in which bunker surveyors were given access to the computers in an engine control room so they could print documents off a USB stick, which introduced a virus to that system. In another incident, a vessel transiting the Strait of Singapore lost two ECDIS networks at the same time on

account of a virus, and had to fall back on paper charts.

"There are examples of these ships being hacked," HFW associate lawyer Henry Clack told the webinar organised by the shipping-oriented law firm.



Marine cyber risk consultancy CyberOwl chief executive Daniel Ng added: "At the moment we are identifying one new incident a day on average, to give some sense of the scale of this."

The key to dealing with hacking is to pick up the problem as early as possible, before any losses are manifested and to mitigate the impact of the breach.

HFW and recently launched CyberOwl yesterday announced that they are now working together on marine cyber risk issues, and can provide reviews of vessel cyber security seaworthiness, cyber security monitoring, and related legal and consulting advice.

July 6th 2021

https://lloydslist.maritimeintelligence.informa.com/LL1137457/One-ship-is-hacked-every-day-on-average

Lack of Effective Position Monitoring at Anchor Leads to Costly Accident: NTSB

A bridge team's lack of effective monitoring of their position while at anchor led to a cargo ship colliding with an anchored bulk carrier and striking a chemical dock on the Lower Mississippi River near New Orleans, according to the National Transportation Safety Board.

Marine Accident Brief 21/15 details the NTSB's investigation of the May 8, 2020, collision of the anchored general cargo ship *Nomadic Milde* with the anchored bulk carrier *Atlantic Venus*. The *Nomadic Milde* then struck a nearby chemical dock and grounded on the bank. The accident resulted in about \$16.9 million in damages. There were no injuries.





The *Nomadic Milde* anchored in the Lower Mississippi River just upriver of the *Atlantic Venus* during high water conditions. After setting the starboard and port anchors, the vessel's positions and headings suggest that the ship did not hold in its original anchor position and likely dragged towards the bank while the ship's pilot was departing the ship. It then dragged for a second time downriver and closer to the *Atlantic Venus*, to about half the original distance between the two vessels.

The Nomadic Milde collided with the Atlantic Venus and struck a nearby chemical dock on May 8, 2020. Photo courtesy of an Atlantic Venus crewmember via NTSB

In its report, NTSB said there was no evidence of either watch officer of the *Nomadic Milde* checking the ship's position at frequent intervals or by means other than the electronic chart and information display system (ECDIS) watch alarm to determine if the ship was secure at anchor. According to



NTSB, there was sufficient evidence to alert the bridge team that the *Nomadic Milde* was not holding well, and had this been detected, the Master could have been alerted earlier. This would have allowed for sufficient time to undertake necessary measures to address the problem.

The NTSB determined the probable cause of the collision was the bridge team on the *Nomadic Milde* not effectively monitoring the vessel's position, and therefore not detecting that the vessel was dragging anchor and had moved from its original position during high water conditions in proximity to other vessels.

"Monitoring a ship at anchor, especially in an area where the risks of nearby hazards and weather and current are present, requires a continuous state of vigilance and the use of all available means to determine whether a vessel is dragging or not," the report said. "Although ECDIS is a useful tool in determining a ship's position at anchor, the ship's radars would have provided information for the crew to determine or crosscheck if the range to a vessel or object had decreased, or if the ship had moved while at anchor."

The public docket for the investigation includes more than 1,300 pages of factual information, including photographs and other investigative materials. The docket is available at https://go.usa.gov/xF7rX.

Marine Accident Brief 21/15 is available at https://go.usa.gov/xF7ZY.

https://gcaptain.com/lack-of-effective-position-monitoring-at-anchor-leads-to-costly-accident-ntsb/?subscriber=true&goal=0_f50174ef03-e362f0c49d-169937937&mc_cid=e362f0c49d&mc_eid=35ccf165ad

The following is from the January 1954 edition of "The Cadet", the Journal of the Training Ship HMS *Conway.* The ship visit was in the autumn of 1953. Mr. Wilkie became the Conway's Chief Cadet Captain in his final term.

MY IMPRESSIONS OF THE LOCH RYAN

By Cadet I. M. R. Wilkie.

Eagerly, we all, that is those of the Upper Third, awaited the day on which we were to pay a visit to one of the ships at Liverpool. The ship was the *Loch Ryan*, a Royal Mail vessel of about nine thousand tons gross. Immediately after breakfast on the appointed day we mustered on the quarterdeck and filed into the coach that was waiting for us on the roadside.

The route to Liverpool took us along the North Wales coast with its beautiful scenery of steep mountainsides on one side of the road and long sandy beaches on the other. We arrived at Birkenhead at about eleven o'clock and went across the river to Liverpool in the ferryboat; how expertly the boat was brought alongside the quay in exactly the correct place. Towering in front of us were the Liver Building, Cunard Building, and many other shipping offices.

We caught a train on the Overhead Railway to the dock and before us was the *Loch Ryan*, looking clean and fresh after her painting on the homeward journey. On board, six of us broke away from the rest of the party and were led down into the engine room. The Second Engineer showed us the various parts of interest. She was powered by double reduction steam turbines and was propelled by a single screw. While in the engineroom we went down the propeller shaft tunnel. The bearing was cooled by water passed through a case around it, and on top of this were oil caps for lubrication. This bearing is called a plumber block and is lined with white metal to prevent excessive friction. For drawing cooling water for the condenser inboard two valves are used. If the ship is passing through canals or is in shallow water the higher valve is used so that mud or sand is not drawn in from the sea.





The ship has three diesel dynamos, two of which were being used to run the auxiliary machinery.

We then went up for lunch and I think we all enjoyed the delicious food served to us. A great improvement of the *Conwav* meals we are used to.



After lunch the Second Officer took us up into the wheelhouse. Here was the gyro repeater compass; the master gyro was down below in the centre of the ship in a special compartment. This ship was fitted with radar and the officer started it for us. Every ship and building is recorded on the screen and the range could be altered to about a maximum of twenty-seven miles. Although the gyro had been started it takes about four hours before it becomes accurate and steady. In the chartroom we were shown some of the sextants and charts, and allowed to take some readings with a sextant.

Then we went to the storerooms. One is refrigerated and carries the fresh foods for the passengers and crew. The other stored the tinned food and in a corner was the sealed compartment for the spirits and cigarettes. This is sealed by the customs officials and cannot be broken until the ship is outside the three-mile limit. While down here we were shown the master gyrocompass. This is placed in the exact centre of the ship and from it several repeaters work. These are run by electricity and therefore rely on the ship's supply, so should this fail the magnetic compass would then have to be used. Thus all ships carry a magnetic compass as well.

By now the other party had gone ashore but we decided to stay on board and the senior Cadet took us up on deck. Here the stevedores were unloading the cargoes, and in the for'ard hold where grain had been stowed, a grain elevator was drawing it out of the ship into large tanks. These are very convenient and are the only practical method of unloading the grain.

The first hold contained bales of cotton and wood pulp. The second had been nearly emptied except for some pigs of lead and zinc. The third hold was still sealed and the cargo in this was for Amsterdam, for where the ship was sailing the following day.

After watching the stevedores at work for some time we decided to stay on board and after a further walk round the deck, where we discussed the cargo work of the ships in port, we were taken into the Cadets' quarters, where we talked about the prospects of a career in the various companies.

The apprentices were very conversational and told me a lot that I did not know before. One gave me a very vivid description of their last voyage to America and the Pacific coast of Canada. We were then treated to a very enjoyable tea before we left, and I thought that the hospitality shown to us on board was very marked. At about five o'clock we had to travel back to the parking grounds at Birkenhead, through the docks and office buildings that cover the waterfront of Liverpool. Fortunately everyone was in the bus at the right time and just as darkness began to cover the docks and ships of the busiest port in the world we started our journey back to Anglesey. Half asleep and half awake the memories of my visit to the *Loch Ryan* flashed through my mind and aroused in me the urge to start my training at sea.

Cadet Wilkie left the school in December 1954 and was taken as an Apprentice by the Shaw Savill & Albion Line along with two other Cadets. Others leaving at that time were taken as Apprentices or Cadets by: Clan Line – 4; Union Castle – 8; Brocklebank – 2; Bibby – 1; Blue Star Line – 2; Ellerman Bucknall – 1; Watts Watts – 3; RFA – 1; British Tankers – 2; Alfred Holt – 4; Furness, Withy – 1; Ellerman Hall – 1; Royal Mail Line – 1; Buries Markes – 1; Pacific Steam Navigation Co. – 1; P&O – 1; Elder Dempster – 1; Sir Robert Ropner & Co. – 2; Houlder Bros. – 3; Port Line – 1; Ben Line – 1. Three Cadets left to continue their education elsewhere; one joined Orient Line as a Purser, one failed his eyesight test and one went to the Royal Naval College, Dartmouth. All would have been about 17 years of age.

Record number of ships forced to drift off southern California: With all anchorages full, and the view from the Californian coastline a vista of steel hulls and laden boxships, record amounts of vessels are being forced to drift off San Pedro Bay. MarineTraffic snapshots of the traffic (see below) require further zooming out to deeper seas as each day breaks new ship gueue records.

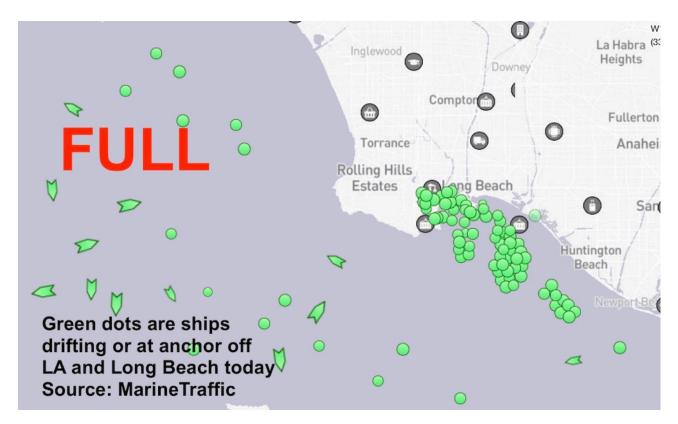




Yesterday's update from the Marine Exchange of Southern California shows that there are 95 ships at anchor or drift areas, waiting for berth space to open up at the ports of Los Angeles and Long Beach, America's top two maritime gateways. Of the 95 vessels in the queue, 70 are containerships. Remarkably there are now 37 ships — including 29 container vessels – being forced to drift in the Pacific.

The process typically sees a vessel drift a number of miles before returning to its original position, something that tends to burn substantial amounts of fuel. Ships that start out at the back of the queue can wait for as long as three weeks now for a berth space to open up.

Sept 21 2021 https://splash247.com/record-number-of-ships-forced-to-drift-off-southern-california/



Earlier this year I received a "thank you" from Gavin Dennison of Tauranga, New Zealand. Included was this comment that refers to the "Whisky Galore" article in the February edition.



Thanks for your latest copy of your magazine, will enjoy some interesting news. Your previous one contained an article about "Whisky Galore" on the *Politician*. While serving my time in Donaldsons and sailing on the *Corrientes* (left), there was a steward, I think his name was McBride, but I am not sure. He was a schoolboy on Barra at the time of the shipwreck and he gave us many stories on what was



really happening. Like, bottles in schoolbags, in guttering, under gravestones and a host of other concealments, not all to be believed; however, one story concerned the last attempt to get it off before she slid into deeper water; he did not mention an explosion. The last truckload was taken away to a secret location, evidently a cave, and the drunken salvagers eventually returned to their homes. It now being 1952 he said that the cache had never been located. One wonders if it was ever found, certainly many bottles turned up all over the place.





Eaglestar celebrates its first female ship Captain: Eaglestar Marine Holdings announced the appointment of Captain Eezmaira Sazzea binti Shaharuzzaman as the company's first Malaysian female ship Master.

Captain Eezmaira Sazzea's first voyage as a Captain began on 13 August 2021 as she took over the command of Seri Bijaksana, a 153,000 cu m LNG carrier.

Captain Eezmaira Sazzea was among the first group of Malaysian women selected to pursue professional maritime training in Akademi Laut Malaysia (ALAM) when the academy opened its doors to female cadets in 2006. She graduated from ALAM in 2011 with a Diploma in Nautical Studies and has been sailing as an Eaglestar officer for the past 10 years. I am very grateful and honoured to be the first Malaysian female Master Mariner in Eaglestar and it will certainly be an exciting journey for me in



this new role. I hope that this will inspire my fellow women seafarers, to strive for greater accomplishments as we continue to add value to the global maritime industry," said Captain Eezmaira Sazzea.

Captain Peter Liew, Managing Director & CEO of Eaglestar said, "We are incredibly proud to have appointed Captain



Eezmaira Sazzea as our first-ever female Captain for Malaysia. Eaglestar believes in fostering a dynamic and inclusive workplace for all our employees at sea and shore, and this includes providing equal opportunities and empowering our female seafarers to rise together with the workforce and realise their fullest potential. We look forward to her future successes in leading her crew in the years ahead and we hope that this accomplishment will pave the way for more female seafarers to follow in her footsteps."

Congratulating Captain Eezmaira Sazzea, Mr. Yee Yang Chien,

President & Group CEO of MISC said, "At MISC Group, we are proud of our talented global workforce, and we believe that diversity and inclusion is fundamental to our core values and strategic business goals. In Seatrade shaping the workforce of the future, we are committed to building a sustainable talent pipeline Maritime News that will drive the progress for the maritime and energy industry." Gary Howard | Aug 18, 2021 https://www.seatrade-maritime.com/crewing/eaglestar-celebrates-its-first-malaysian-female-ship-captain



Read more about Eaglestar at https://www.eaglestar.com.my/

A comment about Superstitions (Seatimes September 2021)

Looking at the Sailors superstitions, I have another one for you.

I recall that after receiving weather reports for the Western Approaches, the Captain would mark "Fug" on the chart instead **Fog!** – or maybe this was a "Ben Line" tradition. **Tony Monaghan**

Is anyone else familiar with this?

The family that eats together stays together

https://twitter.com/marinemonks







Do not depart port without knowing the final cargo weight... In the past there have been serious incidents where the car carriers have capsized as a result of inadequate stability. More concerning was the fact that the crew were also caught unaware. It has more to do with the way the shore side does the cargo planning and execution than the role of the crew, who play little or no part in this.

ALERT. 03 JUN 2021

Car carriers are on a tight schedule with quick port rotations and operate in a very different manner when compared to other vessel segments such as tankers and bulk carriers, where the cargo planning is done onboard. On car carriers, it is the shore side that does it with no involvement of the ship's crew. Their role, and typically that of the Chief Officer is limited to ensuring that the vessel can achieve adequate stability based on the proposed pre-stowage plan, and this is done by adjusting the ballast onboard. On paper the ultimate responsibility for safety of the vessel may rest with the Master, however in reality there may be several impediments for the Master to exercise his responsibility and this is what needs to be addressed by both owners and operators.



The challenge: The biggest challenge here is that the stowage location and/or weight of the cargo actually loaded onboard could differ significantly from the pre-stow plan and these changes might not be communicated to the ship's crew in time before departure from port. Either the crew are not given a copy of the final stowage plan or if provided then there may not be enough time for the crew to check and ensure that vessel has adequate stability. The result is that the ship departs with inadequate stability, i.e. with a small or negative metacentric height (GM).

Recommendations: Operators should ensure that the weights of the vehicles mentioned in the stow plans are not estimates. Accurate weight declaration of the cargo should be prioritized prior to loading.

Vessel operators should have a procedure in place to advise the vessel if there are changes to the preliminary / prestow cargo plan. Responsibility for communicating this would typically rest with the person in charge of tallying the cargo (plan clerk, checker or supervisor), usually appointed by the operator.





After the cargo operations are complete, ship's crew should be given a copy of the final stow plan with accurate weight of the cargo and stowage location. The final departure stability condition should be calculated using the final stow plan.

The vessel should not unmoor until the final stability calculations are complete. If this is not done, the crew should be empowered to delay the departure.

Any concerns should be communicated to both the vessel operator and the ship owner / ISM manager and rectifications made prior to unmooring operations.

https://www.gard.no/web/updates/content/31814809/do-not-depart-port-without-knowing-the-final-cargo-weight-distribution

Downburst Winds Caused CMA CGM Containership to Breakaway in New Orleans: A sudden downburst generating severe, unforecasted winds caused a CMA CGM containership to breakaway from a pier and damage equipment at the Napoleon Avenue Container Terminal in New Orleans last summer, the National Transportation Safety Board said.

Marine Accident Brief 21/18, issued today, details the NTSB's investigation into August 2, 2020 accident, when a localized thunderstorm popped up and passed through the area as longshoremen loaded and unloaded cargo from the 1,099-footlong CMA CGM Bianca, a 8,533 TEU capacity ship.

Ten of the vessel's 16 mooring lines parted in the high winds, and the ship moved away from the pier. Containers lifted by shoreside gantry cranes struck the ship. One damaged container dropped in the water spilling a cargo of plastic pellets, known as nurdles. A crane operator suffered a minor injury and damages totalled approximately \$15.1 million.

In its report, NTSB said the crane operators and CMA CGM Bianca's crew reported extreme high winds that came on "in seconds" during heavy rains.

Rains were heavy enough to completely obscure the visibility of security cameras at the terminal. Although the closest official weather station recorded winds peaking at 31 mph, a vessel located very close to the accident reported a wind gust at 73 mph. The CMA CGM Bianca's Master said that the storm was, "in the form of a tornado." According to the NTSB report, evidence suggests that the CMA CGM Bianca was struck by outflow winds from a downburst.

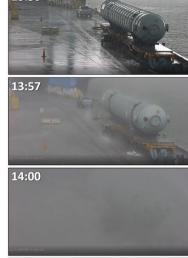
The National Weather Service classifies downbursts as "powerful winds that descend from a thunderstorm and spread out quickly once they hit the ground. These winds can easily cause damage similar to that of a EF0 (65–85?mph winds) or even EF1 (86–110?mph winds) tornado and are sometimes misinterpreted as tornadoes."

NTSB investigators determined the probable cause of the accident to be the sudden onset of unforecasted severe winds likely originating from the outflow of a thunderstorm generated downburst.

Sept. 16th 2021 Marine Accident Brief 21/18 is available on the NTSB's website at https://go.usa.gov/xMBKr.

https://gcaptain.com/downburst-winds-caused-cma-cgm-containership-to-breakaway-in-new-orleans-report/?subscriber=true&goal=0_f50174ef03-9aa89ae18c-139824785&mc_cid=9aa89ae18c&mc_eid=d64cebee38

Security camera footage from Aug. 2, 2020, shows how the rain increased steadily while visibility decreased, completely obscuring the camera view during the storm. (Photo courtesy of Ports America)









FEDNAV signs accord for 10 newbuildings: Fednav Limited, Canada's largest dry bulk shipping group, announced on September 2 it has signed an agreement with Sumisho Marine Co., Ltd. (Sumitomo Corporation Group) and Oshima Shipbuilding to build ten new Ocean-going Lakers. The ships will be built at Oshima shipyard in Japan, with the first vessel expected to be delivered in mid-

The new Fednay-Oshima designed super-eco Lakers represent the most efficient vessels to date for Fednay. Their carbon emissions will be 33% less than the vessels they will replace, including a Nitrogen Oxides (NOx) footprint at least 87%





smaller. They will be delivered equipped with the latest technology, including Tier III engines and the capability of burning biofuels.

The new Lakers will support Fednav's sustainability goals, making them an essential asset for the future. "We are delighted to include these new vessels to our fleet to support the shipping industry and reinforce our commitment to the Great Lakes St. Lawrence Seaway," said Paul Pathy, President and CEO of Fednav. "These new vessels are aligned with our long-term strategy to invest in our future and support our transition toward more sustainable shipping."

Fednav is a privately owned shipping company and is the largest international dry bulk shipping group in Canada. It operates a most modern fleet of about 120 bulk carriers trading worldwide, of which 60 are owned. The company employs 300 office staff worldwide—195 in its Montreal headquarters—and maintains commercial offices in Antwerp, Charlotte, Hamburg, Rio de Janeiro, Singapore and Tokyo.



By Maritime Magazine. Sept 2nd 2021. https://maritimemag.com/en/fednav-signs-accord-for-10-newbuildings/

Why mega-ships are mega risks for marine Insurers: The blocking of the Suez Canal by the *Ever Given* container ship in March shows that ever-increasing vessel sizes continue to pose a disproportionately large risk, said marine insurer Allianz Global Corporate & Specialty SE (AGCS).

On Mar. 23, 2021, the massive container ship *Ever Given* ran aground, crashing into a bank of a single-lane stretch of the Suez Canal, one of the most used shipping lanes in the world. It turned sideways and blocked traffic in the canal in both directions.

The incident was the latest in a growing list of incidents involving large vessels or mega-ships that break the 20,000 teu (twenty-foot equivalent unit) mark, a unit of measurement used to determine cargo capacity for container ships and terminals. "Capacity of container ship vessels alone has increased by 1,500% over 50 years and has more than doubled over the past 15 years," AGCS said in its *Safety & Shipping Review 2021* report, released Aug. 4.

"Larger vessels present unique risks. Responding to incidents is more complex and expensive," Captain Nitin Chopra, senior marine risk consultant at AGCS, said in a press release. "Approach channels to existing ports may have been dredged deeper and berths and wharfs extended to accommodate large vessels but the overall size of ports has remained the same. As a result, a 'miss' can turn into a 'hit' more often for the ultra-large container vessels."

If the *Ever Given* had not been freed, salvage would have required the lengthy process of unloading some 18,000 containers via specialist crane, AGCS reported. The wreck removal of the large car carrier *Golden Ray*, which capsized in U.S. waters in 2019 with more than 4,000 vehicles on it, has taken over a year-and-a-half and cost several hundreds of millions of dollars, the insurer added.

Ever Given is one of the largest container ships in service in the world. The incident caused huge delays to hundreds of vessels waiting to transit the canal, which connects the Red and Mediterranean seas. The blockage was estimated to have affected an estimated \$9 billion of goods each day, or about 12% of total world trade.

Larger vessels means larger exposures, AGCS said. For example, the number of fires on board large vessels has increased significantly in recent years. There was a record 40 cargo-related fires alone in 2019. Across all vessel types, the number of fires/explosions resulting in total losses increased again in 2020, hitting a four-year high of 10.

Fires often start in containers, which can be the result of non- or mis-declaration of hazardous cargo such as chemicals and batteries. Improperly packed and stowed cargo can ignite and/or complicate detection and firefighting. AGCS said in the report. "Major incidents have shown container fires can easily get out of control and result in the crew abandoning the vessel on safety grounds, thus increasing the size of loss." Loss of containers at sea also spiked last year, with over 3,000. The trend is continuing this year, disrupting supply chains and posing a potential pollution and navigation risk. "The number lost is the worst in seven years," AGCS reported. "Larger vessels, more extreme weather, a surge in freight rates and mis-declared cargo weights (leading to container stack collapse), as well as the surge in demand for consumer goods may all be contributing to this increase. There are



growing questions about how containers are secured on board ships."

The good news it that overall, the international shipping industry continued its long-term positive safety trend over the past year, with the number of shipping incidents (losses and casualties over 100 gross tons) declining slightly year-over-



globally, accounting for 40%.

Nautical Professional Education Society of Canada. Founded in 1995 by the BC Branch of The Nautical Institute.



year. In 2020, 49 total losses of vessels were reported globally (including one near Newfoundland), similar to a year earlier (48). "This represents a 50% decline over 10 years," AGCS, noting that there were 98 total losses in 2011. Foundered (sunk/submerged) was the main cause of total losses over the past year, accounting for one in two vessels. Machinery damage/failure was the top cause of shipping incidents **Canadian**

August 16th 2021

https://www.canadianunderwriter.ca/insurance/why-mega-ships-are-mega-risks-for-marine-insurers-1004211187/





See what happens if you run your ship aground in the Suez Canal.

China Xinhua News @XHNews Oct 4, 2021 Giant cargo ship **EVER GIVEN** that blocked the Suez Canal for nearly one week in March reaches east China's coastal city of Qingdao for repairs http://xhtxs.cn/leV

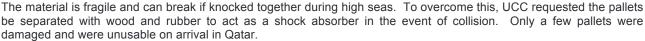
Qatari construction firm avoids 'containergeddon' with clever use of bulk carriers: A Qatari construction company faced with container shortages has opted to use bulk carriers to bring essential building materials from Mainland China to complete an express mega construction project. The fragile materials were loaded into the holds of six bulk carriers in a novel way to reach Hamad port.

The current global supply chain crisis is having an impact on infrastructure projects worldwide. As Qatar's largest contractor, UrbaCon Trading & Contracting Company (UCC) investigated a number of alternatives to deliver high value projects for clients despite the global container shortage and rising freight costs.

Ayman Rabata, head of inbound logistics, explained: "Instead of using traditional shipping methods via container, we've worked out a solution to use bulk carriers – the ships that normally ship grain and unboxed cargo – to make sure there is no disruption to our projects."

The challenge for UCC was to ship over 95,000 cu m of building materials used for large housing projects. The EPS

cement sandwich walls would ordinarily require space in more than 1,400 containers.



Splash has reported on a host of other companies ditching containerships in favour of dry bulk carriers during this year's extreme box shortage.

Earlier this month Coca-Cola's procurement director, Alan Smith, revealed how the beverage giant had recently opted to move just over 60,000 tonnes of material on three handysize bulk carriers instead of liners in order to keep its production lines running across the world. The material shifted in sacks was the equivalent of 2,800 teu. Smith revealed the bulker shift was the first of many planned over the coming months, the latest chapter in what Steve Ferreira, CEO of New York-based shipper advisory Ocean Audit, has described as "containergeddon".

This year has also seen a number of bulk carriers repurposed and strengthened to carry containers. https://splash247.com/gatari-construction-firm-avoids-containergeddon-with-clever-use-of-bulk-carriers/ Oct 28 2021

The word "dunnage" springs to mind. Whatever will they think of next?







How electric vehicle demand will transform the dry bulk trades: Electric vehicles require roughly six times more minerals than their internal combustion engine cousins, something that will have significant, as yet widely

unreported, impacts on the bulk seaborne map.



The strategic raw materials to manufacture electric vehicles will see many so called minor bulks climb the ranks among commodities shipped dramatically over the course of this decade and onwards.

The <u>in-depth feature of this month's Splash Extra</u> identifies both the likely volumes for lithium, cobalt, nickel and other metals as well as rare earths vital for EV batteries and their trading patterns around the globe.

According to Wood Mackenzie, around 70% of world cobalt is supplied by the Democratic Republic of the Congo (DRC), most lithium reserves are concentrated in Chile, Bolivia and Argentina, also known as the lithium triangle, 80% of natural graphite reserves are in China, Brazil and Turkey, while 75% of manganese reserves are in

Australia, Brazil, South Africa and Ukraine.

EVs will be responsible for an estimated 68% of global lithium demand and 39% of cobalt demand by 2025, according to S&P Global. Approximately 13% of primary nickel demand will come from EV-makers by 2025.

https://splash247.com/how-electric-vehicle-demand-will-transform-the-dry-bulk-trades-2/ Oct 28 2021

Port of Churchill to close for two years due to repairs to rail line: The Port of Churchill in northern Manitoba, Canada's only deep-water Arctic port, is closing for two years, while the rail line leading to it is under construction.



Where the rails sit on muskeg, work is being done to stabilize the track bed. While passenger and freight trains continue to run during the construction, "it would have been very difficult to run grain trains at the same time," said Sheldon Affleck, CEO of the Arctic Gateway Group, which owns and operates the rail line and the grain terminal at the port.

"If you don't bite the bullet and do your permanent solutions to the track, it's like a pot-holey road that's always under construction and you never get anything productive done. You are damaging what you are doing while you are doing it inefficiently," said Affleck.

Because of drought this year in Canada's

prairies, grain production was significantly down, meaning the port would have had no grain to ship in 2022. For that reason, the construction is not ill timed.

Nov 5th 2021

https://splash247.com/port-of-churchill-in-northern-canada-to-close-for-two-years-due-to-repairs-to-rail-line/

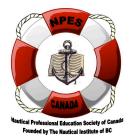
Your Society. Do you wish to make a financial contribution to the Society? Is it time for you to renew your membership? The Annual Membership Fee remains at \$40.00 but any amount that you can donate will be greatly appreciated.

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